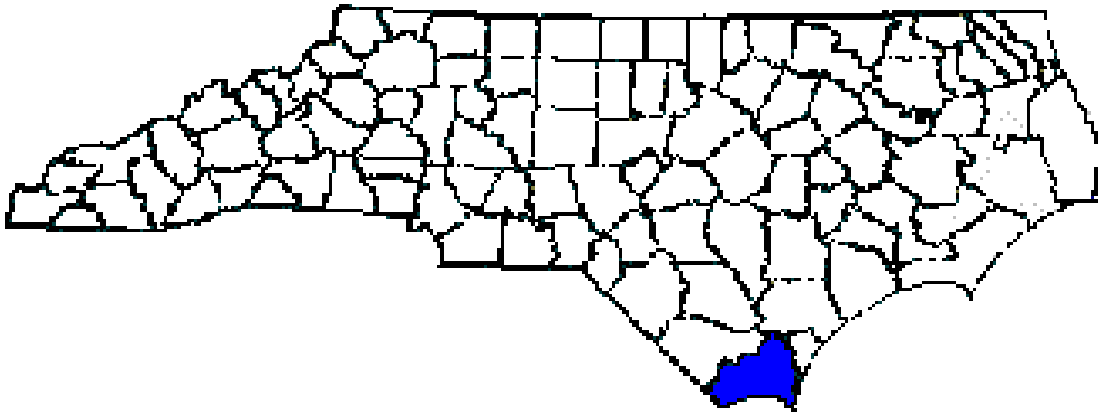


ANNUAL REPORT FOR 2011



**Bear Branch Mitigation Site
Brunswick County
TIP No. B-4030**



Prepared By:
Natural Environment Unit & Roadside Environmental Unit
North Carolina Department of Transportation
July 2011

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SUMMARY

The Bear Branch Mitigation Site is located in Brunswick County. The site was planted in December 2010 and was designed as wetland mitigation for temporary impacts associated with bridge project B-4030.

The mitigation encompasses approximately 0.41 acres total of wetland restoration. NCDOT will restore 0.41 acres of riparian wetlands by removal of fill material used for the temporary onsite detour in the existing wetlands. The restoration effort involved re-vegetating the area that was temporarily impacted. The area that was temporarily impacted is being monitored to ensure that it re-attains wetland jurisdictional status. No hydrologic monitoring is required for this project; however, vegetation monitoring is required for three years.

After the first year of monitoring, the Bear Branch Mitigation Site shows by visual/photograph observation that the restoration area is re-attaining wetland jurisdictional status and tree species planted in the wetland restoration area are surviving.

NCDOT proposes to continue vegetation monitoring at the Bear Branch Mitigation Site.

1.0 INTRODUCTION

1.1 Project Description

The Bear Branch Mitigation Site is located at Bridge No. 9 on NC 130 over Bear Branch (Figure 1). The site consists of approximately 0.41 acres of mitigation for temporary wetland impacts associated with project B-4030.

1.2 Purpose

In order for a mitigation site to be considered successful, the site must meet vegetation success criteria. This report details the vegetation monitoring in 2011 at the Bear Branch Mitigation Site. Hydrologic monitoring was not required for the site.

1.3 Project History

December 2011	Site planted
July 2011	Vegetation Monitoring (Year 1)

1.4 Debit Ledger

The restoration of the Bear Branch Temporary Impacts Site was used entirely to compensate for temporary wetland impacts on the B-4030 project.

2.0 VEGETATION: BEAR BRANCH MITIGATION SITE (YEAR 1 MONITORING)

2.1 Success Criteria

NCDOT will monitor the restoration area by visual/photograph annual reporting for a minimum of three years following planting. Following the third year of monitoring, NCDOT, Regulatory, and Resource agencies will meet on-site to determine if the site temporarily impacted has re-attained wetland jurisdictional status with planted species present. If the site has not re-attained wetland jurisdictional status, NCDOT and the U.S. Army Corps of Engineers will determine whether compensatory wetland mitigation will be required.

2.2 Description of Species

The following tree species were planted in the Wetland Restoration area:

Nyssa sylvatica, Blackgum

Taxodium distichum, Baldcypress

Fraxinus pennsylvanica, Green Ash

Quercus laurifolia, Laurel Oak

2.3 Results of Vegetation Monitoring

The restoration area is re-attaining wetland jurisdictional status and the planted species are surviving. Blackgum, baldcypress, and green ash were noted surviving on site. Pockets of standing water were noted on the north side of Bear Branch as seen in Photo 2.

2.4 Conclusions

There were approximately 0.41 acres of riparian wetland restoration on site. There were no plots established on the site. By visual observation, the Bear Branch Mitigation Site shows that the planted species are surviving in the planted area and that the restoration area is re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the Bear Branch Mitigation Site.

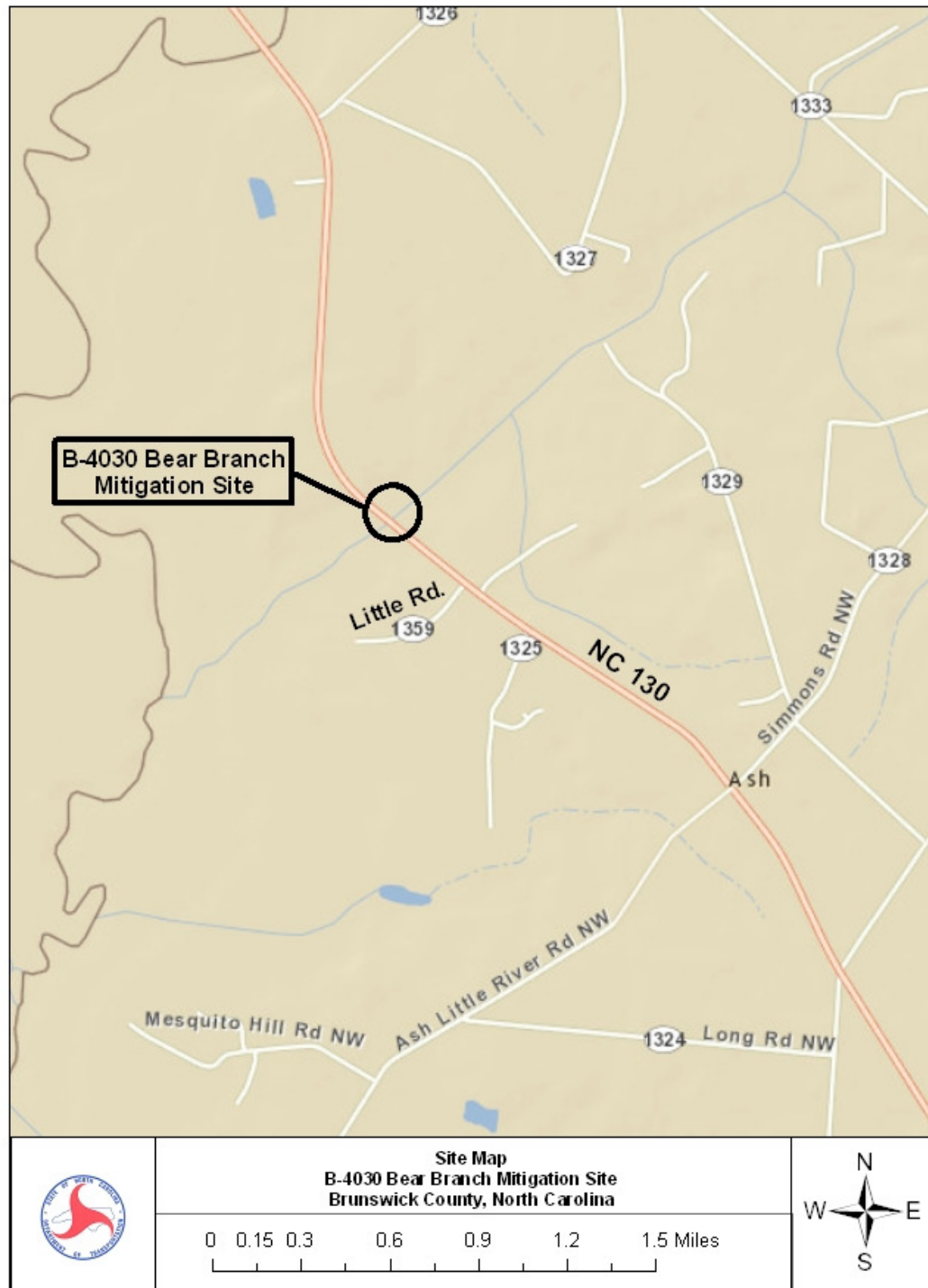


Figure 1. Site Location Map

APPENDIX A

SITE PHOTOS

Bear Branch



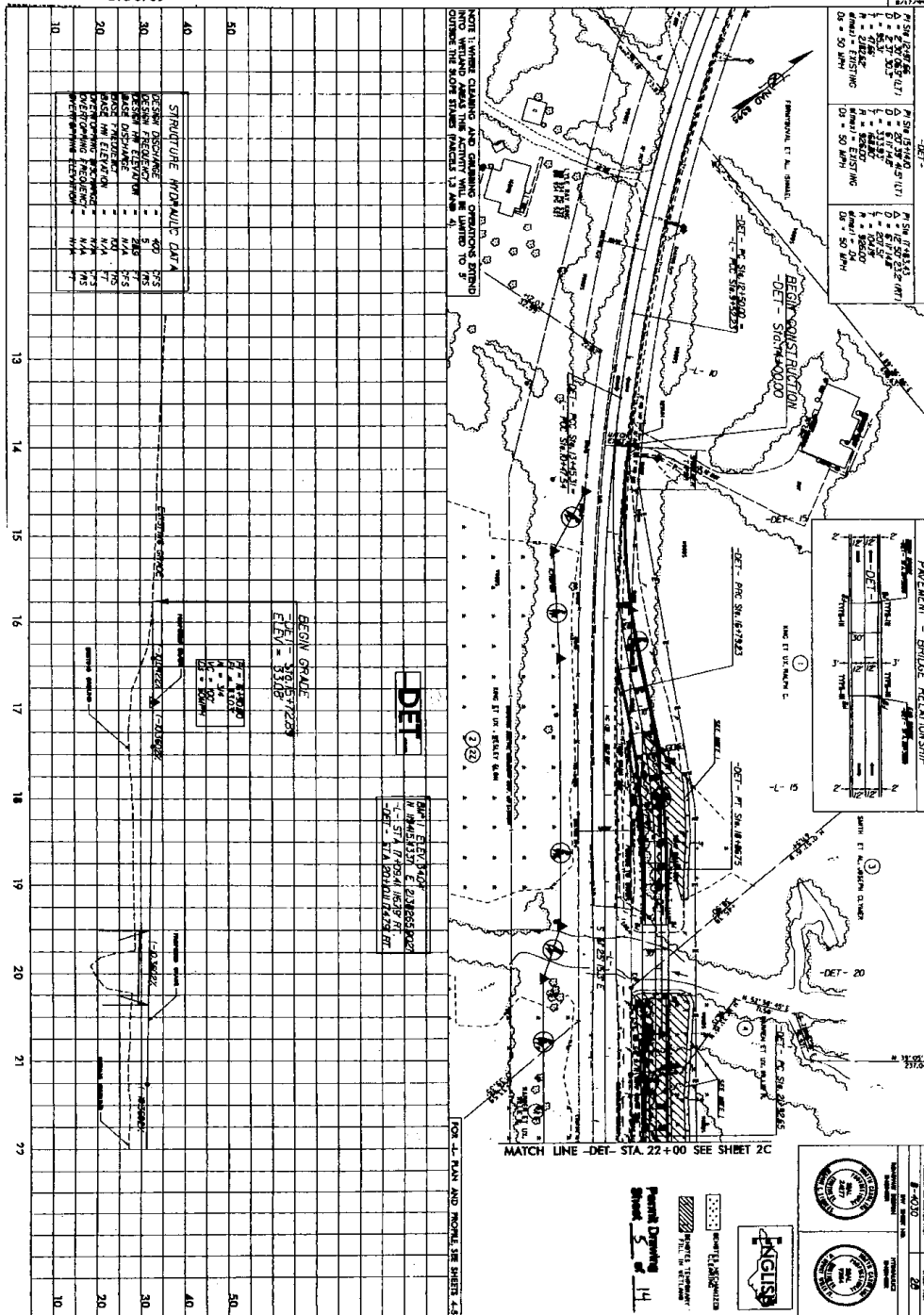
Photo 1



Photo 2

July 2011

3/30/09



DET -

PI 50.15 (14.40)	PI 50.15 (14.40)
Q = 2.1182	Q = 2.1182
L = 2.1182	L = 2.1182
R = 2.1182	R = 2.1182
ADJUSTED ELEVATION	ADJUSTED ELEVATION
50.15 (14.40)	50.15 (14.40)

PAVEMENT - BRIDGE RELATIONSHIP

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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DET -

PI 50.15 (14.40)	PI 50.15 (14.40)
Q = 2.1182	Q = 2.1182
L = 2.1182	L = 2.1182
R = 2.1182	R = 2.1182
ADJUSTED ELEVATION	ADJUSTED ELEVATION
50.15 (14.40)	50.15 (14.40)

DET -

PI 50.15 (14.40)	PI 50.15 (14.40)
Q = 2.1182	Q = 2.1182
L = 2.1182	L = 2.1182
R = 2.1182	R = 2.1182
ADJUSTED ELEVATION	ADJUSTED ELEVATION
50.15 (14.40)	50.15 (14.40)

DET -

DET -

BEGIN GRADE
ELEV = 33.00

STRUCTURE APPROXIMATE DATA

DESIGN DISCHARGE	40 CFS
DESIGN FLOW	280 CFS
DESIGN FLOW ELEVATION	34.00
DESIGN DISCHARGE	40 CFS
DESIGN FLOW	280 CFS
DESIGN FLOW ELEVATION	34.00
DESIGN DISCHARGE	40 CFS
DESIGN FLOW	280 CFS
DESIGN FLOW ELEVATION	34.00

MATCH LINE - DET - STA. 22+00 SEE SHEET 2C

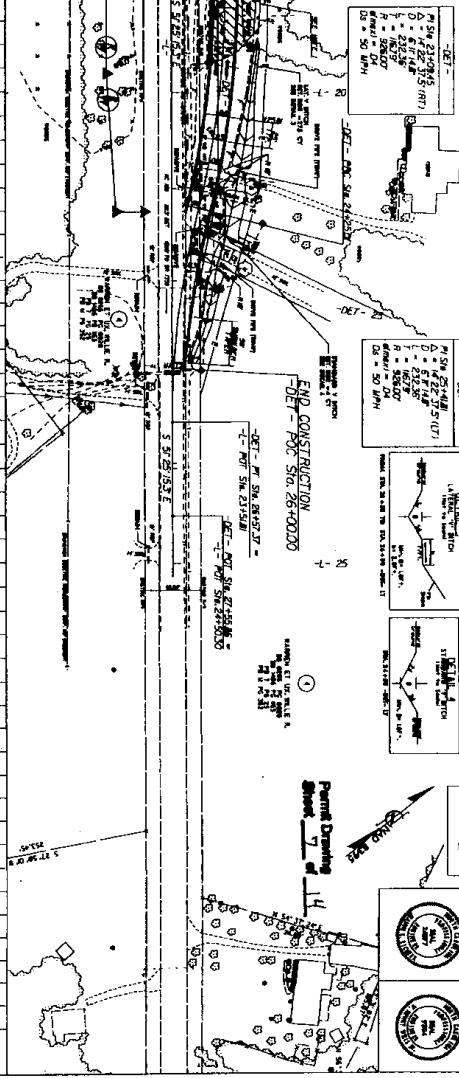
Partial Drawing
Sheet 5 of 14

3/30/09

NOTE: 1. WORKING CLEARING AND GRADING OPERATIONS EXTEND INTO WETLAND AREAS THIS ACTIVITY WILL BE LIMITED TO 5' OUTSIDE THE SLOPE STAKES PUNCHES 13 AND 41.

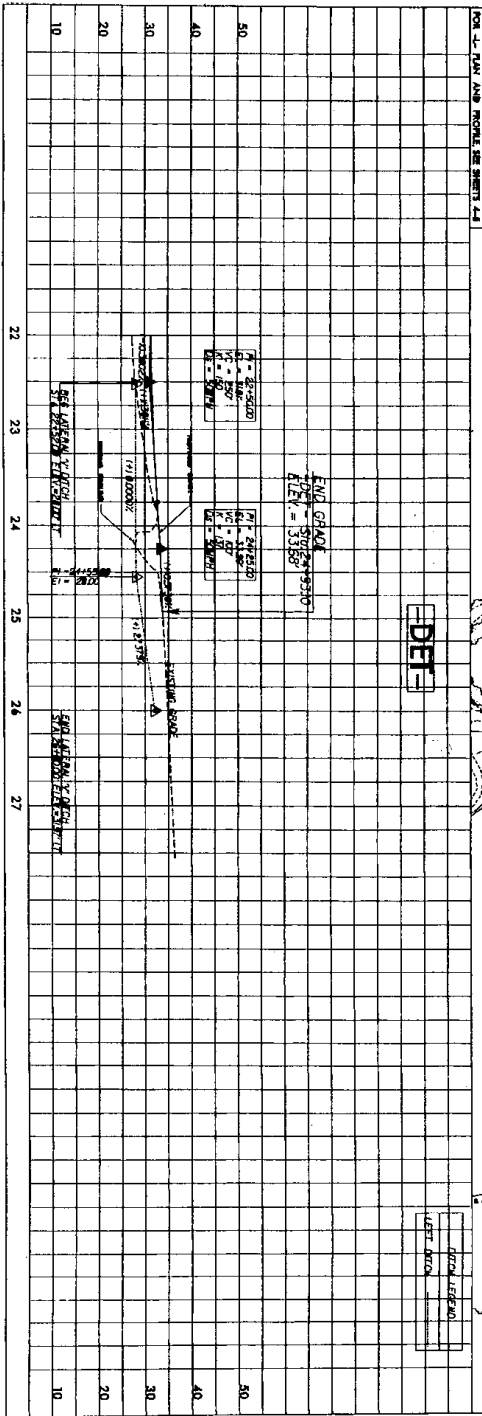
PROPOSED
EXISTING

MATCH LINE - DET - STA. 22+00 SEE SHEET 28



DET

LEFT RIGHT



ENGLISH

Project Drawing
Sheet 27 of 41

Scale: 1" = 40' 0"

North Arrow

Legend

PROPOSED
EXISTING